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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|---------------|----------------------|-------------------------|------------------|
| 10/626,530 | 07/25/2003 | Reiner L. Gentz | PF111U3C1D1 | 2273 |
| 22195 75 | 90 07/08/2005 | | EXAM | INER |
| HUMAN GENOME SCIENCES INC | | | MERTZ, PREMA MARIA | |
| INTELLECTUAL PROPERTY DEPT. 14200 SHADY GROVE ROAD | | • | ART UNIT | PAPER NUMBER |
| ROCKVILLE, | MD 20850 | | 1646 | |
| | | | DATE MAILED: 07/08/2009 | • |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|--|---|--|--|--|--|--|
| Office Addison Commence | 10/626,530 | GENTZ ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Prema M. Mertz | 1646 | | | | |
| The MAILING DATE of this communication ap Period for Reply | pears on the cover sheet with the c | orrespondence address | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a rep - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b). | 136(a). In no event, however, may a reply be timely within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE | nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133). | | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed on | 1) Responsive to communication(s) filed on | | | | | |
| 2a) This action is FINAL . 2b) ☑ Thi | This action is FINAL. 2b)⊠ This action is non-final. | | | | | |
| 3) Since this application is in condition for allowa | ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| closed in accordance with the practice under | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Disposition of Claims | | | | | | |
| 4)⊠ Claim(s) <u>1-19</u> is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | 5) Claim(s) is/are allowed. | | | | | |
| 6) Claim(s) is/are rejected. | | | | | | |
| · · · · · · · · · · · · · · · · · · | Claim(s) is/are objected to. | | | | | |
| 8)⊠ Claim(s) <u>1-19</u> are subject to restriction and/or | election requirement. | | | | | |
| Application Papers | | | | | | |
| 9)☐ The specification is objected to by the Examiner. | | | | | | |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | |
| The bain of declaration is objected to by the E | xammer. Note the attached Office | Action of form PTO-152. | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: | | | | | | |
| 1. Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | | |
| application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| See the attached detailed Office action for a list of the Certified copies not received. | | | | | | |
| Attachment(s) | | | | | | |
| 1) Notice of References Cited (PTO-892) | (PTO-413) | | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Da | ate | | | | |
| Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date | 6) Other: | atent Application (PTO-152) | | | | |

U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04)

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DETAILED ACTION

Election/Restriction

- Restriction to one of the following inventions is required under 35 U.S.C. 121: 1.
 - Claims 1-9, drawn to a nucleic acid molecule encoding a M-CIF polypeptide, a I. vector, a host cell and method of producing a M-CIF polypeptide, classified in class 435, subclass 69.5.
 - II. Claims 10-11, drawn to a M-CIF polypeptide, classified in class 530, subclass 324.
 - Claim 12, drawn to an antibody to a M-CIF polypeptide, classified in class III. 530, subclass 387.9.
 - IV. Claims 13-14, drawn to a method of treatment by administering a M-CIF polypeptide, classified in class 424, subclass 85.1.
 - V. Claims 15-16, drawn to a method of treatment by administering an MPIF-1 deletion mutein, classified in class 424, subclass 85.1.
 - VI. Claim 17, drawn to a M-CIF deletion polypeptide, classified in class 530, subclass 324.
 - VII. Claim 18, drawn to a method of treatment comprising administering a M-CIF deletion polypeptide, classified in class 424, subclass 85.1.
 - VIII. Claim 19, drawn to a MPIF-1 polypeptide of amino acid residues 1 to 79 of SEQ ID NO:59, classified in class 530, subclass 324.
 - IX. Claim 19, drawn to a MPIF-1 polypeptide of amino acid residues 60 to 137 of SEQ ID NO:11, classified in class 530, subclass 324.

- X. Claim 19, drawn to a MPIF-1 polypeptide of amino acid residues 46 to 137 of
 SEQ ID NO:11, classified in class 530, subclass 324.
- XI. Claim 19, drawn to a MPIF-1 polypeptide of amino acid residues 1 to 85 of SEQID NO:60, classified in class 530, subclass 324.
- XII. Claim 19, drawn to a MPIF-1 polypeptide of amino acid residues 54 to 137 of SEQ ID NO:11, classified in class 530, subclass 324.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-III, VI, VIII-XII are independent and distinct, each from the other, because they are products which possess characteristic differences in structure and function, that is distinct for each invention which cannot be exchanged. The polynucleotide of Group I can be used to make a hybridization probe or can be used in gene therapy as well as in the production of the protein of interest of Group II. The protein of Group II can be used as an antigen to make an antibody, or used as a probe, or used therapeutically or diagnostically (e.g. in screening), while the proteins of Groups VI and VIII-XII can be used to make antibodies that bind to the specific M-CIF and MPIF-1 proteins without binding to the M-CIF deletion mutein and the specific MPIF-1 muteins, respectively.

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the protein can be prepared by materially different processes, such as by chemical synthesis, or obtained from nature using various isolation and purification protocols.

Inventions IV-V, VII, are independent and distinct, each from the other, because the methods are practiced with materially different products which are structurally and chemically different, the novelty of the inventions lying in the products being administered and not the processes. The only feature in common in the instant inventions is "the method of treating an individual for attracting T lymphocytes comprising administering ...", which does not constitute the special technical feature lacking from the prior art because this method can be used with a composition other than the instant products such as IL-2. Distinctness is further shown because each of these products in each method can be made and used without any one or more of the other products. The products in the different Groups are physically, chemically and biologically distinct from each other, and if patentable would support separate patents. Furthermore, separate search terms would be required for searching the literature, eg. a search of the literature for an association of MPIF-1 deletion mutein with inhibition of proliferation or differentiation of myeloid cells, would not necessarily reveal art for an association of a MCIF mutein with sepsis or renal injury or lupus.

Inventions II and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (M.P.E.P. § 806.05(h)). In the instant case the product of invention II can also be used as an antigen in the production of antibodies.

Inventions VI and VII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the

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product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (M.P.E.P. § 806.05(h)). In the instant case the product of invention VI can also be used as an antigen in the production of antibodies.

Inventions I and IV-V, VII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together, or they have different modes of operation, or they have different functions, or they have different effects. (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions the inventions are not disclosed as capable of use together.

Inventions II and V, VII, are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together, or they have different modes of operation, or they have different functions, or they have different effects. (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions the inventions are not disclosed as capable of use together.

Inventions III and IV-V, VII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together, or they have different modes of operation, or they have different functions, or they have different effects. (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions the inventions are not disclosed as capable of use together.

Inventions IV-V, VII and VIII-XII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together, or they have different modes of operation, or they have different functions, or they have different effects. (MPEP § 806.04,

MPEP § 808.01). In the instant case the different inventions the inventions are not disclosed as capable of use together.

Having shown that these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their recognized divergent subject matter as defined by MPEP § 808.02, the Examiner has *prima facie* shown a serious burden of search (see MPEP § 803). Therefore, an initial requirement of restriction for examination purposes as indicated is proper.

2. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

Election of Species

3. This application contains claims directed to the following patentably distinct species of the claimed invention:

If either Group VII is elected, Applicants are required to elect one of the following disease conditions:

- (i) myeloprotection;
- (ii) inhibiting growth of hematopoietic cells;

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- (iii) treating sepsis;
- (iv) suppression of TNF-α production;
- (v) treating renal injury;
- (vi) treating arthritis or joint inflammation;
- (vii) treating enterocolitis; and
- (viii) treatinglupus.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

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examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai, In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the

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product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder.

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Advisory Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prema Mertz whose telephone number is (571) 272-0876. The examiner can normally be reached on Monday-Friday from 7:00AM to 3:30PM (Eastern time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa, can be reached on (571) 272-0829.

Official papers filed by fax should be directed to (571) 273-8300. Faxed draft or informal communications with the examiner should be directed to (571) 273-0876.

Information regarding the status of an application may be obtained from the Patent application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prema Mertz Ph.D. Primary Examiner Art Unit 1646 June 29, 2005